MIC Series 550 Classic Camera

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BOSCH
Invented for life

- Choice of 36x or 28x day/night cameras with 550 TVL, 12x digital zoom, and Wide Dynamic Range (WDR)
- Video and control over IP when powered by MIC IP Power Supply (sold separately)
- Sodium Vapor White Balance mode restores objects to their original color
- Robust design rated to an industry-leading IP68
- Complete series of mounting accessories; various mounting positions, including on-site canting

The MIC Series 550 Classic camera combines cutting-edge technology with the latest production techniques to provide a class-leading feature set in an economical package. The MIC Series 550 Classic range takes high quality surveillance to new levels of excellence.
As a best-fit camera for virtually any security application, it can be installed in the harshest of environments. Thanks to its IP68-rated aluminum casing, the MIC Series 550 Classic camera functions perfectly in the most demanding conditions. This tough and vandal-resistant casing provides protection from the elements and physical attack. An integrated long-life silicone wiper and a reversible rain shield ensure high quality images regardless of the installed environment.
The brushless-motor technology offers ultra-reliable operation with full 360º continuous rotation pan and 270º tilt control for exceptional viewing capability. Small increment pan speeds from just 0.2º per second to 120º per second gives the user precise control. This speed control is especially important when used with video analytic systems, particularly for tracking subjects when fully zoomed in.
The MIC Series 550 Classic camera incorporates Bosch's standard controller interface supporting familiar AutoDome on-screen menus. This enhancement makes it simple to integrate and use the MIC Series 550 Classic within systems that already use Bosch AutoDome cameras and systems.

System overview

Subjected and certified to rigorous dust and immersion tests (IP68), MIC Series cameras are perfectly suited for installation in even the most unforgiving environments. Reliable 'O' ring seals completely protect the internal components from the external environment, meaning that there is no need to pressurize the camera. To guarantee the seal, the factory subjects each MIC camera to a 100% leak test before shipping. In addition, the cameras' aluminum construction is protected from corrosion by two different processes: first, the cameras receive a coating of Alodine 5200, a chromate-free conversion coating of aluminum that is used in the aerospace and defense industries where a protective layer is required to improve corrosion resistance. Second, they receive a robust, powder coat layer of paint.

Multi-protocol operation
The MIC Series 550 Classic camera supports the following protocols for seamless integration with existing security systems: Bosch “Biphase (OSRD)” and “Bilinx,” Pelco “P” and “D,” and Forward Vision.

Various mounting options, including on-site canting
The MIC Series 550 Classic camera features twist-lock on-site canting functionality. This allows the camera to be installed upright, inverted, or canted (at a 45º angle) to achieve the perfect field of view. No matter the installation position, the camera will operate faultlessly.

Integrated wiper
Regardless of the weather, the MIC Series 550 Classic camera is able to capture the highest possible quality image all year long, thanks to its integrated, long-life silicone wiper.

Model Differences
The table below identifies the differences between the models of MIC550 Classic and MIC550.

Feature	MIC550 Classic	MIC550
Number of Presets	64	99
Privacy Masking	No	Yes
Image Stabilization	No	Yes
On-screen compass, azimuth, elevation	No	Yes
IR models	No	Yes

Functions

High-performance PTZ day/night cameras
Image control and quality are integral aspects of any PTZ camera, and the MIC Series 550 Classic camera delivers. The camera is available with a choice of 28X or the industry-leading 36X optical zoom lens, and offers a full 12X digital zoom. Both camera options provide 550 TVL of horizontal resolution for outstanding clarity and image detail. The cameras also incorporate technology that dramatically improves the dynamic range by 128 times. Also known as Wide Dynamic Range (WDR), it results in clear image reproduction in extreme high-contrast environments. The AutoScaling (proportional zoom) and AutoPivot (automatically rotates and flips the camera) features ensure optimal control.
Day/night capabilities and outstanding sensitivity make the MIC Series 550 Classic cameras exceptional performers in all lighting conditions. In low light, these cameras automatically switch from color to monochrome by removing the IR filter to boost sensitivity, while maintaining superior image quality. For operation in the darkest conditions, the SensUp control feature automatically reduces the shutter speed to as little as one second. This increases sensitivity by more than 50 times.
In addition to low light applications, the camera is also an exceptional performer when viewing under a sodium vapor lamp (for example, a street lamp or tunnel lamp). Images under these conditions normally have a yellowish tint, so the MIC Series 550 Classic camera automatically compensates for the light from a sodium vapor lamp to restore objects to their original color.
With super-quick, 120°/60° per-second pan/tilt speeds, the MIC Series 550 Classic camera outperforms other cameras in its class. The camera supports 64 pre-positions and two styles of Guard Tours: Preset and Record/Playback. The preset tour has capability for up to 64 pre-positions with a configurable dwell time between pre-positions, and can be customized as to the order and frequency each preset is visited. The camera also provides support for two recorded tours, which have a combined duration of 15 minutes of movements. These are recorded macros of an operator’s movements, including pan, tilt, and zoom activities, and can be played back in a continuous manner.

Ease of installation and servicing
Bosch’s innovative software, the Configuration Tool for Imaging Devices (CTFID), allows technicians or operators to control the PTZ, change camera settings, and even update firmware from remote locations without need for additional wiring.
The MIC Series 550 Classic camera has advanced built-in diagnostics to simplify service and minimize downtime. Using the On Screen Display (OSD), a technician can quickly and easily check critical parameters (such as internal temperature) to verify that the camera is functioning within acceptable operating limits.

Applications:
- General CCTV
- ANPR systems
- Vandalism prone areas
- Extreme environments
- Rapid deployment
- High security
- Prestigious developments
- Broadcast
- Architectural

Certifications and approvals

Electromagnetic Compatibility (EMC)	Complies with FCC Part 15, ICES-003, and CE regulations, including EN50130-4 and EN61000-3-2 & 3-3 and EN55022
Product Safety	Complies with CE regulations, UL, EN, and IEC Standards 60950-1 & 22
Ingress Protection Rating	IP68 (1m submersion for 24 hrs)

Region	Certification	
Europe	CE	2004/108/EC, 2006/95/EC

Technical specifications

Camera - 36x Day/Night

Imager	1/4 in.-type Exview HAD CCD (progressive scan)	
Resolution / Effective Picture Elements	Approximately 440,000; 752(H) x 582(V) (PAL)	
Lens	36x Zoom (3.4 to 122.4 mm) F1.6 to F4.5	
Zoom Movement Speed	4.0 seconds (optical Wide to optical TELE)	
	6.2 seconds (optical wide to digital TELE)	
Focus	Automatic with manual override	
Iris	Automatic with manual override	
Field of View (FOV)	1.7° to 57.8°	
Video Output	1.0 Vp-p, 75 Ohm	
Gain Control	Auto/Manual/Max. (-3 dB to +28 dB, 2 dB steps)	
Aperture Correction	Horizontal and vertical	
Digital Zoom	12x	
Horizontal Resolution	550 TVL (PAL) typical	
Sensitivity (typical) [1]	**30 IRE**	**50 IRE**
Day Mode		
SensUp Off	0.66 lux	1.4 lux
SensUp On (PAL 1/3s, 16.7X)	0.04 lux	0.1 lux
Night Mode		
SensUp Off	0.104 lux	0.209 lux
SensUp On (PAL 1/3s, 16.7X)	0.0052 lux	0.0103 lux
Electronic Shutter Speed	1/1 to 1/10,000 sec., 22 steps	
Signal-to-Noise Ratio (SNR)	>50 dB	
White Balance	2000 K to 10,000 K	

1 Unless otherwise stated, test conditions are: F1.6; shutter = PAL 1/50s; max AGC

Camera - 28x Day/Night

Imager	1/4 in.-type Exview HAD CCD (progressive scan)	
Resolution / Effective Picture Elements	Approximately 440,000; 752(H) x 582(V) (PAL)	
Lens	28x Zoom (3.5 to 98.0 mm) F1.35 to F3.7	
Zoom Movement Speed	1.7 seconds (optical wide to optical TELE, optical wide to digital TELE)	
Focus	Automatic with manual override	
Iris	Automatic with manual override	
Field of View (FOV)	2.1° to 55.8°	
Video Output	1.0 Vp-p, 75 Ohm	
Gain Control	Auto/Manual/Max. (-3 dB to +28 dB, 2 dB steps)	
Aperture Correction	Horizontal and vertical	
Digital Zoom	12x	
Horizontal Resolution	550 TVL (PAL) typical	
Sensitivity (typical) [2]	**30 IRE**	**50 IRE**
Day Mode		
SensUp Off	0.33 lux	0.66 lux
SensUp On (PAL 1/3s, 16.7X)	0.02 lux	0.04 lux
Night Mode		
SensUp Off	0.066 lux	0.166 lux
SensUp On (PAL 1/3s, 16.7X)	0.0026 lux	0.0082 lux
Electronic Shutter Speed	1/1 to 1/10,000 sec., 22 steps	
Signal-to-Noise Ratio (SNR)	>50 dB	
White Balance	2000 K to 10,000 K	

2 Unless otherwise stated, test conditions are: F1.35, shutter = PAL 1/50s; max AGC

Mechanical

Drive Unit	Brushless, integral pan/tilt motor drive
Pan Range	360° continuous rotation
Tilt Angle	270°
Tilt Range	Upright unit: -58° - +90° Canted unit: -103° - +90°
Variable Speed	Pan: 0.2°/second - 120°/second Tilt: 0.2°/second - 60°/second
Pre-position Speed	120°/second
Preset Accuracy	0.17° (typical)
Proportional Pan / Tilt to Zoom	Yes
Audible Noise	<66dB

Electrical

Input Voltage	18 VAC nominal
Power Consumption	18 W maximum
Current Consumption	1 A maximum

Miscellaneous

Sectors / Titling	16 independent sectors with 20 characters per title
Pre-positions	64, each with 20 characters per title
Camera Setup / Control	RS-485, Bilinx (coax); also Bosch Biphase with converter (sold separately)
Communications Protocols	Bosch (Bilinx, OSRD), Pelco P/D, Forward Vision (Bosch OSRD requires use of converter device (MIC-BP3 or MIC-BP4), sold separately.)
Guard Tours	Two (2) types of tours: • Recorded tours - two (2), total duration 15 minutes • Preset tour - one (1), consisting of up to 64 scenes, consecutively and (1) customized up to 64 scenes
Washer Drive	Optional washer kit (MIC-WKT Kit used with the appropriate HAC-WAS washer pump)

User Connections

Power	Via composite cable (sold separately)
RS-485 Biphase ±	RS-485 (Twisted pair; Simplex, half and full duplex operation via composite cable) Biphase ± (Optional; requires MIC Biphase module with external power supply.)
Video	Coaxial via composite cable (sold separately)
Alarm Inputs	One (1) tamper input (eight [8] additional inputs possible with optional alarm card)
Relay Out	Two (2) relay outputs and washer relay output only with optional alarm card
Alarm Communication	Tamper switch (ground connection)

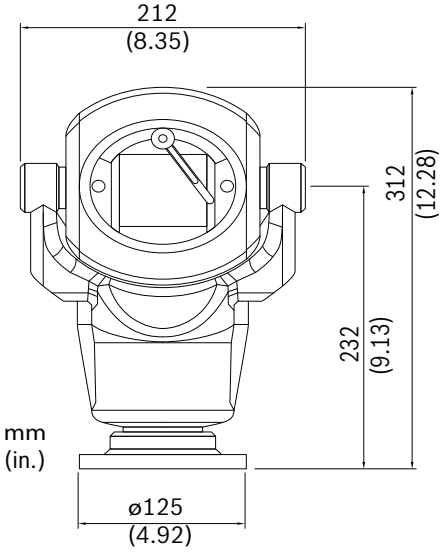
Environmental

Ingress Protection Rating	IP68
Operating Temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Cold Start-up Temperature	-40 °C (-40 °F) (Requires 30-minute warm-up prior to PTZ operations)
Storage Temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Humidity	0-100%
Wind Load	209 km/h (130 mph) (sustained) (Gusts up to 290 km/h (180 mph))
	Effective Projected Area (EPA): 0.044m² (0.47 ft²)
Vibration	IEC60068-2-6, Test Fc: Vibration (sinusoidal), 20m/s² (2.0g)
Shock	IEC60068-2-7, Test Ea: Shock, 20g

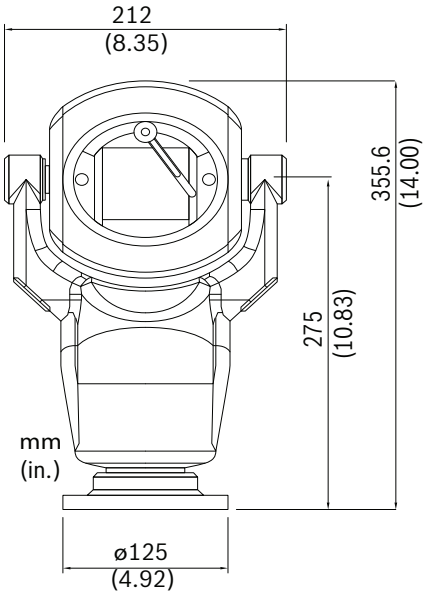
Construction

Dimensions (W x H x D)	
Upright and Inverted	212 x 355 x 177 mm (8.35 x 14.0 x 7.0 in.)
Canted	212 x 312 x 255 mm (8.35 x 12.3 x 10.0 in.)
Weight	7 kg (15.43 lb) (including 4 in. pitch circle diameter (PCD) base)
Viewing Window	Tempered flat glass
Construction Material	Cast solid aluminum
Standard Colors	Black (RAL 9005), White (RAL 9010)
Standard Finish	Alodine 5200 surface treatment with powder coat paint, sand finish
Window Wiper	Standard, long-life silicone wiper
Canting	Twist-lock canting secured by two security screws

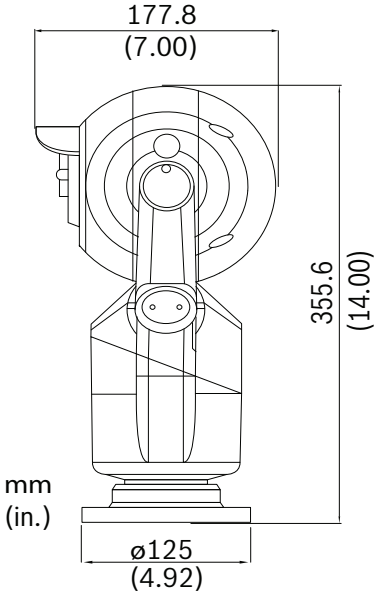
Dimensional Drawings



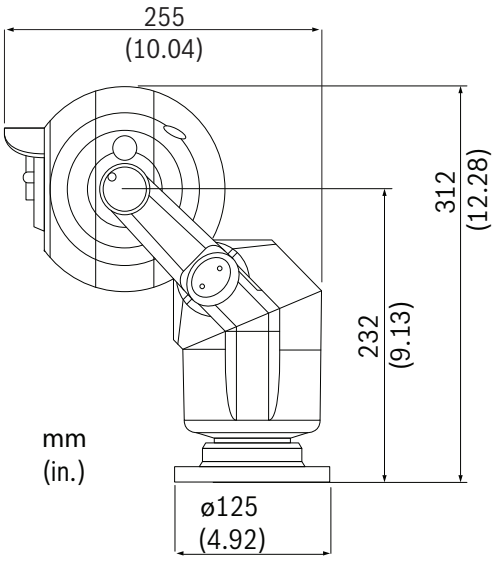
Front detail, 45° (canted)



Front Detail, 90° (upright)



Side Detail, 90° (upright)



Side detail, 45° (canted)

Ordering information

MIC-550CLW28P
MIC550 Classic PTZ, Day/night camera, white, 28x, PAL
Order number **MIC-550CLW28P**

MIC-550CLW36P
MIC550 Classic PTZ, Day/night camera, white, 36x, PAL
Order number **MIC-550CLW36P**

MIC-550CLB28P
MIC550 Classic PTZ, Day/night camera, black, 28x, PAL
Order number **MIC-550CLB28P**

MIC-550CLB36P
MIC550 Classic PTZ, Day/night camera, black, 36x, PAL
Order number **MIC-550CLB36P**

Accessories

MIC Cable 2M
2 meter (6.56 ft) composite cable with plug for power, data and video for MIC Series cameras
Order number **MIC-CABLE-2M**

MIC Cable 10M
10 meter (32.81 ft) composite cable with plug for power, data and video for MIC Series cameras
Order number **MIC-CABLE-10M**

MIC Cable 20M
20 meter (62.62 ft) composite cable with plug for power, data and video for MIC Series cameras
Order number **MIC-CABLE-20M**

MIC Cable 25M
25 meter (82.02 ft) composite cable with plug for power, data and video for MIC Series cameras
Order number **MIC-CABLE-25M**

MIC-24PSU-2 MIC Power Supply Unit, 24VAC, 50/60 Hz
24 VAC, 50/60 Hz power supply with two video outputs for MIC Series cameras.
Order number **MIC-24PSU-2**

MIC-115PSU-2 MIC Power Supply Unit, 120VAC, 50/60 Hz
115 VAC, 50/60 Hz power supply with two video outputs for MIC Series cameras.
Order number **MIC-115PSU-2**

MIC-240PSU-2 MIC Power Supply Unit, 230 VAC, 50/60 HZ
230 VAC, 50/60 Hz power supply with two video outputs for MIC Series cameras.
Order number **MIC-240PSU-2**

MIC IP Power Supply 115 VAC
115 VAC, 50/60 Hz, IP-enabled power supply for MIC Series cameras
Order number **MIC-IP-PS-115**

MIC IP Power Supply 230 VAC
230 VAC, 50/60 Hz, IP-enabled power supply for MIC Series cameras
Order number **MIC-IP-PS-230**

MIC IP Power Supply 24 VAC
24 VAC, 50/60 Hz, IP-enabled power supply for MIC Series cameras
Order number **MIC-IP-PS-24**

MIC-DCA-BD Deep Conduit Adapter, Black
Deep conduit adapter for 4 in. PCD base, black sand finish (RAL9005)
Order number **MIC-DCA-BD**

MIC-DCA-WD Deep Conduit Adapter, White
Deep conduit adapter for 4 in. PCD base, white sand finish (RAL9010)
Order number **MIC-DCA-WD**

MIC-SCA-BD Shallow Conduit Adapter, Black
Shallow conduit adapter for a MIC-WMB, a MIC-PMB, or a MIC-SPR, black sand finish (RAL9005)
Order number **MIC-SCA-BD**

MIC-SCA-WD Shallow Conduit Adapter, White
Shallow conduit adapter for a MIC-WMB, a MIC-PMB, or a MIC-SPR mount, white sand finish (RAL9010)
Order number **MIC-SCA-WD**

MIC-SPR-BD Spreader Plate, Black
Aluminum spreader plate suitable for brickwork surface mounting, black sand finish (RAL9005)
Order number **MIC-SPR-BD**

MIC-SPR-WD Spreader Plate, White
Aluminum spreader plate suitable for brickwork surface mounting, white sand finish (RAL9010)
Order number **MIC-SPR-WD**

MIC-CMB-BD Corner Mount Bracket, Black
Corner mount bracket, black sand finish (RAL9005)
Order number **MIC-CMB-BD**

MIC-CMB-WD Corner Mount Bracket, White
Corner mount bracket, white sand finish (RAL9010)
Order number **MIC-CMB-WD**

MIC-WMB-BD Wall Mount Bracket, Black
Wall mount bracket, black sand finish (RAL9005)
Order number **MIC-WMB-BD**

MIC-WMB-WD Wall Mount Bracket, White
Wall mount bracket, white sand finish (RAL9010)
Order number **MIC-WMB-WD**

MIC-PMB Pole Mount Bracket
Pole mount bracket (includes 2 x 455 mm stainless steel banding straps for pole diameters 75 to 145 mm)
Order number **MIC-PMB**

MIC-BP3 Biphase Converter
Biphase converter for IR power supplies or non-IR power supplies without a free expansion slot available
Order number **MIC-BP3**

MIC-BP4 Biphase Converter
Biphase converter for non-IR versions of MIC series power supply units
Order number **MIC-BP4**

MIC-ALM Alarm and Washer Pump Drive Card
8 Input alarm and washer pump drive card for PSU (Not for IR PSU)
Order number **MIC-ALM**

MIC-WKT Washer Kit
Washer kit for non infrared MIC models (includes washer pump drive card, washer nozzle and mounting brackets for wall and 4 in. PCD base)
Order number **MIC-WKT**

VP-USB Cable
USB to BNC adaptor
Order number **VP-USB**

VG4-SFPSCKT Fiber Optic Ethernet Media Converter Kit
Ethernet media converter video transmitter/data receiver fiber optic kit
Order number **VG4-SFPSCKT**

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